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10/087,621	03/01/2002	David Pratt Remsen	58378.127	7946

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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/087,621	REMSEN ET AL.	
	Examiner	Art Unit	
	LESLIE WONG	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10/17/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *32,33,38-60,62-66,69 and 70* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *32,33, 38-60, 62-66, and 69-70* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _____ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 32, 33, 38-60, 62-66, and 69-70 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Dietzman; Gregg R. ("Dietzman")** (US 5978804 A) in view of **Rothwein; Thomas M. et al. ("Rothwein")**(US 20070192287 A1)

Regarding claim 41, **Dietzman** teaches a computerized method for managing taxonomic information to facilitate retrieval of information (col. 1 lines 8-17 i.e., custom taxonomic scheme), comprising:

providing a database including (Fig. 3A):

a names table in which each entry associates a character string with a name identifier as the taxonomy table structure consists of seven tables that have a key index and secondary index on the NODC taxonomic code fields that linked that tables in a hierarchy; *three additional tables* that contain information on *synonyms and common names are linked* by a *key index to corresponding NODC taxonomic code* and code suffixes(col. 3, lines 37-44; and col. 6, lines 20-44; col. 21, lines 35-55);

a taxon table in which each entry associates a name identifier with a taxon

identifier as the correlating means is further configured to correlate the remote databases based on one of either a genus species identification, Chemical Abstracts Registry Number, or the National Oceanographic Data Center Taxonomic Code (NODC) or Serial No. (col. 3, lines 37-44).

To communicate with other databases NAPIS uses linkage on genus species name, Chemical Abstracts Registry Number, or the National Oceanographic Data Center (NODC) Taxonomic Code. The NAPIS PSDE uses a NODC Taxonomic Code, a widely distributed checklist of organism names. The NODC Taxonomic Code is a numbering system assigned to organisms was entered and checked for errors, all entry is in upper case and is used by many database projects (col. 6, lines 20-44; col. 21, lines 35-55); and

a database of classifications that accommodates alternative classifications, the database including:

As an example, a researcher working on a sponge of the genus Xestospongia would need to know that since 1977 this genus has been classified in four different ways: family Nepheliospongiidae, order Nepheliospongida; Family Petrosiidae, order Haplosclerida; family Petrosiidae, order Petrosida; and family Nepheliospongiidae, order Haplosclerida. The Phylogenetic Structure Database Engine (PSDE) will incorporate the multiple classification schemes such as those published for Xestospongia, arming a researcher with an in-depth knowledge of an organism without having to wait for consultation from an expert. The PSDE will also allow investigators

to create custom taxonomy using easy "graphical" interface "click and drag" methods. NAPIS also includes synonyms and common names. The PSDE will take genus lists from any source and apply a taxonomic structure, which reflects phylogeny, or an alternative structure, to them. Multiple classification schemes can be readily applied such as chemotaxonomy, cladistics, or unresolved disputes over classification. The PSDE will allow investigators flexibility when looking for trends within a complicated hierarchical structure (col. 6, line 49 to col. 7, line 7).

Dietzman does not explicitly teach the steps of:

a reference table in which each entry associates a classification identifier with a taxon that represents the root of the classification; and

a classification table in which each entry associates a taxon identifier with a classification identifier, a relationship attribute, and a second taxon identifier;

identifying a name that specifies an organism;

based on the name and a the database of classifications, determining a classification for the organism; and

retrieving information based on at least the name.

Rothwein, however, teaches the steps of:

a reference table in which each entry associates a classification identifier with a taxon that represents the root of the classification as an item to have the attributes necessary to describe the item, associates itself with a particular class. The object is identified as an item ABC. ABC can be the model number or other reference

number related to particular item (i.e., classification identifier) (page 3, paragraph 0036, Table 3; table 8 (i.e., reference) with object (i.e., classification id) and class association (page 4, paragraph 0044 and table 8);

a classification table in which each entry associates a taxon identifier with a classification identifier, a relationship attribute, and a second taxon identifier as table 7, (i.e., classification table) contains attributes associated with each class … and certain attribute relationships (page 4, table 7, paragraph 0041).

identifying a name (that specifies an organism) as item number in Table 8 (page 4, paragraph 0044);

based on the name and a the database of classifications, determining a classification for the organism as Item 1 belongs to Class I in Table 8 (page 4, paragraph 0044); and

retrieving information based on at least the name as the retrieve value is Blue (page 4, table 7 and table 9).

Although **Rothwein** does not have the exact claimed elements such as reference table, classification table, and taxon identifier etc... it is submitted that these terms are merely nonfunctional descriptive material and is not functionally involved in the recited claims.

Dietzman and Rothwein in combination would have provided the structure and functionally interrelationship to achieve the claimed invention.

Dietzman is drawn to an integrated computer database system for the processing of information on natural product chemistry and biological activity to enable the creation of custom taxonomic schemes. The taxonomy table structure consists of seven tables that have **a key index and secondary index on the NODC taxonomic code fields** that **linked** that **tables in a hierarchy**; *three additional tables* that contain information on *synonyms and common names are linked* by a *key index to corresponding NODC taxonomic code* and code suffixes (col. 3, lines 37-44; and col. 6, lines 20-44; col. 21, lines 35-55).

Rothwein is directed to arranging objects in a class hierarchy structure. Object can be members or associated with a particular class (paragraph 0012). Furthermore, joining tables to retrieve desired information is well-known in the prior art (i.e., joining the name table and the classification table to retrieve the second name).

All the claimed elements were known in the prior art and one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded predictable results to one of ordinary skill in the art the time of the invention.

Claims 32, 38, 39, 40 and 60 claimed similar subject matters and therefore the claims are rejected on the same ground of rejection as claim 41.

Claim 33, **Dietzman** further teaches based on the first name and the second name, deriving a search parameter (col. 14, lines 35-65).

Claims 42-45 and 62-64, **Dietzman** further teaches wherein the name is a polynomen (col. 6, lines 54-64; col. 5, liens 12-16).

Claims 46-47, 65, 66, and 69, and 70, **Dietzman** further teaches wherein the name is a scientific and non-scientific name (col. 6, lines 49-67).

Claims 48-50, **Dietzman** further teaches receiving a request for information including the name; and directing the request to a data layer to determine a unique identifier associated with the organism (col. 14, lines 50-55 and col. 14, line 66 – col. 15, line 8).

Claim 51, identifying a textual description associated with the organism (Figs 6F and G).

Claims 52-54, **Dietzman** further teaches identifying an illustration associated with the organism (col. 12, lines 44-57).

Claims 55-59, **Dietzman** further teaches determining a geographical classification for the organism (col. 12, lines 12-25 and Fig. 6m).

Examiner's Remarks

Claim 32 recites a method claim; however, it does not contain any hardware components. The Examiner suggests amending claim 32 to recite components of the specific machine that is used in carrying out the invention in order to avoid a possible rejection under 35 U.S.C. 101 in view of the recent decision of the Court of Appeals for the Federal Circuit in re Bilski.

Response to Arguments

Applicant's arguments filed 10/17/2008 have been fully considered but they are not persuasive.

Applicant argues that Dietzman fails to disclose a database of classifications that accommodates alternative classifications that includes a reference table and a classification table as recited in claim 41.

In response to the preceding arguments, Examiner respectfully submits that Dietzman teaches a database of classifications that accommodates alternative classifications as the Phylogenetic Structure Database Engine (PSDE) will incorporate the multiple classification schemes such as those published for Xestospongia, arming a

researcher with an in-depth knowledge of an organism without having to wait for consultation from an expert. The PSDE will also allow investigators to create custom taxonomy using easy "graphical" interface "click and drag" methods. NAPIS also includes synonyms and common names. The PSDE will take genus lists from any source and apply a taxonomic structure, which reflects phylogeny, or an alternative structure, to them. Multiple classification schemes can be readily applied such as chemotaxonomy, cladistics, or unresolved disputes over classification. The PSDE will allow investigators flexibility when looking for trends within a complicated hierarchical structure (col. 6, line 49 to col. 7, line 7). Although Dietzman does not explicitly teach the name of a particular reference table and classification table, technically it must have those tables in order to implement the multiple classification structure. Since Dietzman does not explicitly teach the elements: a reference table and a classification table, Rothwein was brought in to supplement the above features to satisfy the requirements. Rothwein teaches a reference table in which each entry associates a classification identifier with a taxon that represents the root of the classification as an item to have the attributes necessary to describe the item, associates itself with a particular class. The object is identified as an item ABC. ABC can be the model number or other reference number related to particular item (i.e., classification identifier) (page 3, paragraph 0036, Table 3; table 8 (i.e., reference) with object (i.e., classification id) and class association (page 4, paragraph 0044 and table 8); Rothwein further teaches a classification table in which each entry associates a taxon identifier with a classification identifier, a relationship attribute, and a second taxon identifier as table 7, (i.e., classification table)

contains attributes associated with each class … and certain attribute relationships (page 4, table 7, paragraph 0041). As such, the combination of the Dietzman and Rothwein would have arrived at the claimed invention.

Applicant further argues that Dietzman means for correlating natural products data and natural products images with remote databases form correlated data storage in the memory. (Dietzman, Col. 3, lines 12-16). Additionally, the correlating means correlate remote databases based on either a genus species identification, chemical abstracts registry number or the national oceanographic data center taxonomic code or serial number. (Dietzman, Col. 3, lines 41-45). Dietzman discloses a natural products information system ("NAPIS") that includes a phylogenetic structure database engine ("PSDE") that provides structure to genus species lists that are obtained from outside sources and incorporates multiple classification schemes, where NAPIS uses linkage on genus species name, chemical abstracts registry number, or the national oceanographic data center taxonomic code. (Dietzman, Col. 6, lines 20-61). However, Dietzman fails to disclose a database of classifications that accommodates alternative classifications that includes a reference table and a classification table, as recited in claim 41. Rothwein fails to cure the deficiencies of Dietzman. As understood by Applicants, Rothwein discloses hierarchical class architecture of objects. (Rothwein, Abstract). Rothwein further describes a system each specific object is identified with specific attributes, for example, object "ABC" has a motor of "inline 6", color "blue", wheels "13 inch", transmission "automatic", etc.. (Rothwein, page 3, Table 4). Each object ABC will

be identified as having one specific attribute in the above categories, where attributes are drawn from specific domains. (Rothwein, page 4, Table 7). Rothwein does not present any alternative attributes to its objects. Hence, Rothwein fails to disclose a database of classifications that accommodates alternative classifications, which includes a reference table and a classification table, as recited in claim 41.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LESLIE WONG whose telephone number is (571)272-4120. The examiner can normally be reached on Monday to Friday 9:30am - 6:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, CHARLES RONES can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LW
January 20, 2009

/Leslie Wong/
Primary Examiner, Art Unit 2164